



Research Article

ROLE OF *TAKRA ODAN AS AHAR* ALONG WITH *NAGKESHAR CHURNA* IN PREVENTION AND MANAGEMENT OF *SHWETAPRADARA*

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ABSTRACT

Leucorrhoea i.e. *Shwetapradar* is universal problem of women which is caused by increased stress, strain, improper diet & unhygienic conditions. Most commonly used treatment according to modern science is vaginal pessaries which act fast & give symptomatic relief but they have chances of recurrence. Ayurveda advocates healthy lifestyle including proper diet & treatment regime to manage such diseases & its recurrence. According to Ayurveda *Ahar* is the main reason for being healthy or diseased. Considering this, a clinical study has been planned with an aim of "To evaluate the role of *Takra & Odan as Ahar* along with *Nagkeshar churna* in *Shwetapradar*".

For the study, 60 patients having symptoms of *Shwetapradar* were selected & divided in two groups randomly. Trial group (Group A) was treated with *Nagkeshar churna* along with *Takra & Odan as Ahar* whereas control group (Group B) was treated with *Nagkeshar churna* alone for 21 days with weekly follow up. After the completion of study it was observed that relief obtained in symptoms was faster in Group A than in Group B. Also relief obtained was much more in Group A than in Group B. Hence study was concluded that the formulation stimulates astringent action in vaginal mucosa and reduces excessive vaginal discharge & pelvic congestion. Thus dietary modifications play a significant role in curing *Shwetapradar*.

KEYWORDS: Leucorrhoea, Recurrence, Healthy lifestyle, Dietary modification.

INTRODUCTION

Ayurveda – literally means "science of life" is based on the twin principles of wholeness & balance. As a holistic healing tradition, Ayurveda recommends treating the "Whole" person - body, mind, senses, emotions & spirit instead of following the "One cause - One cure" principle & focusing on the symptoms of the moment. The premise is that if roots are nourished & watered the plant will flourish. According to Acharya Sushrut it is only due to diet the strength, immunity, clarity of complexion & sense organs develops & so are diseases due to irregularity of diet¹. In Ayurveda *Ahar* (food), *Nidra* (sleep) and *Brahmacharya* (celibacy) are three pillars or tripod of healthy living (*Swasthya*)². It is important for our body to be adjusted to the timely intake of good quality & proper food & sleeping habits³.

Starting from the 21st century is the time of civilization & competitive life. In all fields women are competing equally with man & more efforts to counter this extra burden. As a result women are facing many physical ailments in which Leucorrhoea is one of the most common problems.

Leucorrhoea, a vaginal discharge is present in 70-80% of women which makes embarrassing to get into social gathering & even engage in personal life. Fatigue, Stomach cramps, headache, constipation, pain in lumbar region are the associated symptoms. Ignorance may lead to severe complications. The affected women need assurance, prevention of infection & some counseling. Patient get symptomatic relief after allopathic treatment, but it is not completely cured & they come with the same complications repeatedly. With the help of Ayurveda, we can give a good result in Leucorrhoea. Ayurvedic dietetics (*Pathyahaar*) helps to reduce symptoms of *Shwetapradara* and also helps in prevention. As stated in Yog Ratnakar *Takra & Odan* along with *Nagkeshar* is very beneficial for the Leucorrhoea⁴. *Takra & Odan* are the part of *Ahar* and are easily available, digestible & affordable. *Nagkeshar Churna* is also easily available. So, to reestablished the importance of Ayurvedic dietetics related to *Shwetapradara* the disease is selected for the clinical study.

AIMS & OBJECTIVES

1. To review Ayurvedic & modern literature available on *Shvetapradara*.
2. To review the literature available on *Takra*, *Odan* & *Nagkeshar*.
3. To evaluate the efficacy of *Takra*, *Odan* & *Nagkeshar* as preventive aspect in *Shvetapradara*.

MATERIAL AND METHOD

Name of the centre: M.A.Podar Hospital, Mumbai.

Type of the study: Open controlled randomized study.

Ethical Aspect: The study protocol was approved by ethical committee.

No. of patients: The total number of patients i.e., 60 will be divided into 2 groups with 30 patients in each group based on random selection.

Selection criteria

Inclusion criteria

1. Married women of age between 18 to 40 years.
2. All the patients of vaginitis, cervicitis, IUCD, PID, anaemia, etc.
3. *Yonivyapda* having symptoms like excessive *Yonistrava*, *Yonikandu* and *Yonidaurchandya*.

Exclusion criteria

1. Unmarried.
2. Pregnant and PNC patients upto 6 months.
3. Patients having bleeding per vagina from any cause.
4. Premalignancy & malignancy of genital tract.
5. Uterine or cervical polyp, fibroid or tumour.
6. VDRL, HIV, HBsAg positive patients.

Drug - Takra : 200 ml

Odan : 50 gm

Nagkeshar: 5 gm

Method of preparation

Takra Kalpana

According to Yogratnakar & Bhavaprakasha *Takra* is prepared by adding one part of curd to the 1/4th of water & churned well. Butter is not separated from the *Takra*. It should be neither more concentrated nor diluted & should be *Madhura* & *Kashaya Rasa*⁵.

Preparation of Odana

First take 50gms of *Shashtika* & rinse it with clean water. Then soak the rice grains for 10 mins. After that add five times more water to it & then allow it to cook. After the rice is cooked, take out the *Mand* (rice water) from it⁶.

Nagkeshar churna

Nagkeshar churna is made available from M.A.Podar Hospital as it is Govt. supply to Podar hospital.

Duration of the treatment: 21 days.

Follow up will be maintained on every week.

CRITERIA FOR ASSESSMENT

A specially designed case record form (CRF) will be use to record clinical signs & symptoms, general symptoms, perspeculum, and laboratory findings.

Criteria for Diagnosis

Patients having symptoms

1. Amount of discharge
2. Itching
3. Lower abdominal pain
4. Low backache
5. Frequency of micturation

Gradation of Symptoms

Amount of Discharge

Grade 0- No discharge

Grade 1- mild, slight discharge p/v only vulval moistness

Grade 2- moderate, staining undergarments only

Grade 3- severe, need pad

Itching

Grade 0- Absent

Grade 1- mild, occasional feeling irritability

Grade 2- moderate, excoriation, disturb routine but no need to take medicine

Grade 3- severe, with excoriation of vulva & need to take medicine

Lower Abdominal Pain

Grade 0- Absent

Grade 1- mild

Grade 2- moderate

Grade 3- severe

Low backache

Grade 0- No backache

Grade 1- mild, backache on working & get relief on rest

Grade 2- moderate, backache on rest also & get relieved by local application

Grade 3- severe backache & need medication

Urinary Frequency

Grade 0: 3-4 times in a day

Grade 1: 4-6 times in a day

Grade 2: 6-8 times in a day

Grade 3: more than 8 times in a day

Per speculum Examination

Vaginitis, cervicitis & discharge will be record as

Grade 0: nil

Grade 1: mild

Grade 2: moderate

Grade 3: severe

Gradation of PH

Grade 0: 4-4.5

Grade 1: 4.6-5.5

Grade 2: 5.6-6.6

Grade 3: 6.6 and above

Statistical Analysis

To reach the final result & conclusion the data that has generated during the study was subjected to statistical analysis. Wilcoxon signed rank sum test and Mann-Whitney Test were applied for evaluation of subjective data while Paired t test and Unpaired t test were applied for evaluation of

objective data. Significance of the results was studied at 5% level of significance.

Total Effect of Therapy

The effect of the therapy was assessed in terms of totally cured, cured, markedly improved, improved and unchanged. The details are as follows-

1. Cured: 75% to 100% relief, from all the signs & symptoms, was considered as cured.

2. Markedly Improved: 50% to 75% relief from, the signs & Symptoms, was considered as markedly improved.

3. Improved: 25% to 50% relief, from the signs & symptoms was, considered as improved.

4. Unchanged: Less than 25% or no relief, from the signs & Symptoms, was considered as unchanged.

5. LAMA: Those patients who left the treatment before advised duration or who did not followed the instruction about *Ahara-Vihara* were considered as left against medical advice (LAMA)

Table 1: Age wise distribution

Sr. no	Age in (yrs)	Trial group		Control group		Total no pts	
		No. of pts	%	No. of pts	%	60	%
1	18-29	14	46.66%	13	43.33%	27	45%
2	30-40	16	53.33%	17	56.66%	33	55%

Table 2: Weight wise distribution

Sr. no	Weight in (kg)	Trial group		Control group		Total no pts	
		No. of pts	%	No. of pts	%	60	%
1	30-45	13	43.33%	08	26.66%	21	35%
2	46-60	10	33.33%	14	46.66%	24	40%
3	Above 60	07	23.33%	08	26.66%	15	25%

Table 3: Diet wise distribution

Sr. No	Diet	Trial group		Control group		Total no pts	
		No. of pts	%	No. of pts	%	60	%
1	Vegetarian	05	16.66%	04	13.33%	09	15%
2	Mixed	25	83.33%	26	86.66%	51	85%

Table 4: Religion wise distribution

Sr. No	Religion	Trial group		Control group		Total no pts	
		No. of pts	%	No. of pts	%	60	%
1	30-45	25	83.33%	23	76.66%	48	80%
2	46-60	02	6.66%	03	10%	05	8.33%
3	Above 60	03	10%	04	13.33%	07	11.66%

Table 5: Education wise distribution

Sr. No	Education	Trial group		Control group		Total no pts	
		No. of pts	%	No. of pts	%	60	%
1	Uneducated	05	16.66%	06	20%	11	18.33%
2	Upto SSC	21	70%	17	56.66%	38	63.33%
3	SSC to Graduate	04	13.33%	07	23.33%	11	18.33%

Table 6: Occupation wise distribution

Sr. No	Occupation	Trial group		Control group		Total no pts	
		No. of pts	%	No. of pts	%	60	%
1	Housewife	28	93.33%	27	90%	55	91.66%
2	Employee	02	6.66%	03	10%	05	8.33%

Table 7: Socio economic status wise distribution

Sr. No	Socioeconomic status	Trial group		Control group		Total no pts	
		No. of pts	%	No. of pts	%	60	%
1	Lower economic class (poor)	13	43.33%	10	33.33%	23	38.33%
2	Middle economic class	17	56.66%	18	60%	35	58.33%
3	Higher economic class	00	00	02	6.66%	02	3.33%

Table 8: Prakruti wise distribution

Sr. No	Prakruti	Trial group		Control group		Total no pts	
		No. of pts	%	No. of pts	%	60	%
1	Vatakaphaja	12	40%	15	50%	27	45%
2	Vatapittaja	09	30%	08	26.66%	17	28.33%
3	Kaphavataja	08	26.66%	05	16.66%	13	21.66%
4	Kaphapittaja	01	3.33%	01	3.33%	02	3.33%
5	Pittajavataja	00	00	00	00	00	00
6	Pittajakaphaja	00	00	01	3.33%	01	1.66%

Table 9: Obstetrical history wise distribution

Sr. no	Obst. History	Trial group		Control group		Total no pts	
		No. of pts	%	No. of pts	%	60	%
1	Vaginal delivery	15	50%	15	50%	30	50%
2	Recurrent abortion	06	10%	09	30%	15	25%
3	IUCD	02	6.66%	02	6.66%	04	6.66%
4	Nulliparous	07	11.66%	04	13.33%	11	18.33%

Statistical Analysis**Table 10: Statistical Analysis of effects of therapy on subjective parameters in Group A By Wilcoxon signed rank test**

Sr. no	Symptom		Mean	SD	SE	Sum of all signed ranks	No. of pairs	Value of 'Z'	P
1	Amount of discharge	BT	1.433	0.6789	0.1240	300	24	4.2857	<0.001 Highly Significant
		AT	0.400	0.6215	0.1135				
		DIFF	1.033	0.6687	0.1221				
2	Itching	BT	1.433	0.6789	0.1240	300	24	4.2857	<0.001 Highly Significant
		AT	0.400	0.6215	0.1135				
		DIFF	1.033	0.6687	0.1221				
3	Low abdominal pain	BT	1.867	0.5713		351	26	4.4573	<0.001 Highly Significant
		AT	0.500	0.6823					
		DIFF	1.367	0.7184					
4	Low	BT	1.267	0.7397		259	24	3.7	<0.001

	Backache	AT	0.3333	0.6065					Highly Significant
		DIFF	0.9333	0.8683					
5	Urinary frequency	BT	0.9667	0.7649	0.1396	171	18	3.7235	<0.001 Highly Significant
		AT	0.2667	0.5822	0.1065				
		DIFF	0.700	0.6513	0.1189				
6	Pap smear	BT	1.900	0.8449		351	26	4.4573	<0.001 Highly Significant
		AT	0.8667	0.7761					
		DIFF	1.033	0.5561					
7	PH	BT	0.8333	0.4611		253	22	4.1071	<0.001 Highly Significant
		AT	0.1	0.3051					
		DIFF	0.733	0.4498					

Table 11: Statistical Analysis of effects of therapy on subjective parameters in Group B By Wilcoxon signed rank test

Sr. No	Symptom		Mean	SD	SE	Sum of all signed ranks	No. of pairs	Value of 'Z'	P
1	Amount of discharge	BT	2.0	0.5164		275	25	3.699	<0.001 Highly Significant
		AT	1.710	3.635					
		DIFF	0.2903	4.002					
2	Itching	BT	1.700	0.5350		136	16	3.5162	<0.001 Highly Significant
		AT	1.033	0.6687					
		DIFF	0.667	0.7112					
3	Low abdominal pain	BT	1.710	0.8638		228	24	3.2571	<0.001 Highly Significant
		AT	0.8667	0.6288					
		DIFF	0.9	1.155					
4	Low Backache	BT	1.4	0.7240		96	15	2.7272	<0.001 Highly Significant
		AT	0.8	0.7611					
		DIFF	0.6	0.9322					
5	Urinary frequency	BT	0.8333	0.6989		66	11	2.9340	<0.001 Highly Significant
		AT	0.4333	0.5040					
		DIFF	0.4	0.5632					
6	Pap smear	BT	1.933	0.7849		190	19	3.8230	<0.001 Highly Significant
		AT	1.200	0.9965					
		DIFF	0.733	0.6397					
7	PH	BT	1.133	0.5713		105	14	3.2967	<0.001 Highly Significant
		AT	0.6667	0.5467					
		DIFF	0.4667	0.5074					

Table 12: Comparison of Results of two Groups by Mann Whitney U Test

Sr. No	Symptom	ΣR_1	ΣR_2	U_1	U_2	SD	Z	P
1	Amount of discharge	1023	807	342	558	67.63	1.59	<0.05 significant
2	Itching	1043	787.5	322	578	67.63	1.89	<0.05 significant
3	Lower abdominal pain	1064.0	766	301	599	67.63	2.2	<0.001 very significant
4	Low backache	1025.5	804.5	339.5	560.5	67.63	1.633	<0.05 significant
5	Urinary frequency	1027.5	802.5	337.5	562.5	67.63	1.633	<0.05 significant
6	Pap smear	1016.0	814.00	349.0	551.0	67.63	1.49	<0.05 significant
7	Ph	1035	795	330	570	67.63	1.774	<0.05 significant

DISCUSSION

The study entitled, "Role of *Takra-Odan* as *Ahar* along with *Nagkeshar Churna* In Prevention & Control of *Shwetapradara*, aimed at evaluating the efficacy of diet modification along with internal medications in the patients of *Shwetapradara*. Patients were selected on OPD basis and divided randomly in two groups.

The findings of clinical study are discussed critically as under.

- Discussion on demographic analysis
- Discussion on clinical efficacy of therapy
- Probable mechanism of action of drug

The demographic analysis of 60 patients is as follows

Age

55% of patients belonged to age group 30-40 years. This shows that the *Shwetapradara* is more common in women of reproductive age group.

Weight

40% of patients in the study had weight ranging between 46-60 kg.

Diet

85% of patients ate non vegetarian diet. This shows that non veg diet plays significant role in causing *Shwetapradara*. Non vegetarian diet causes *Agnimandya* and *Strotavrodha* resulting into vitiation of *Doshas*.

Prakruti

It was observed that *Kapha* and *Vata doshas* play an important role in etio pathogenesis of *Shwetapradara*. *Vatakaphaja* 45%, *Vaatapittaja* 28.33% *Prakruti* followed by *Kaphavataja* 21.66% *Prakruti*.

Symptoms wise distribution of patients

Next to discharge, 93.33% of patients had itching whereas only 45% of patients had increased frequency of urination. This might be because of irritant nature of the discharge.

Analysis on the clinical efficacy of the therapy suggested the following

- The % of relief observed in both groups & was further put to statistical analysis.
- In both groups, by Wilcoxon signed rank test, significant results were obtained at the end of clinical trial.
- By Mann Whitney test, comparison of both the groups was done.

The results of this test were significant in all symptoms

- The results obtained in both the groups are statistically significant.

- Thus *Nagkesar* can be a drug of choice in treating leucorrhoea.
- The results of Group A are significant than the Group B, hence dietary modifications along with the drug enhances the effect of the drug thereby play an important role in curing the Leucorrhoea.

Probable mechanism of action of drug

Takram laghu kashayaamlam deepanam kaphavaatajit ||

By virtue of its properties, it exerts *Grahi* effect on the discharge, thereby reducing the discharge. Besides it causes *Agnideepan*, resulting into mitigation of aggravated *Apaan vaayu* and *Kapha dosha*. It also causes the *Pachana* of *Kleda* produced by vitiated *Kaphadosha*⁷.

Rasa - Kashaya, Madhura

Guna - Laghu, Ruksha, Grahi, Vikasi, Agnideepaka

Virya - Ushna

Vipaka - Madhura

Being *Vikasi* it might be channelizing the *Avruddha strotas*, resulting into *Agni deepana*, mitigation of vitiated *Apaan vaayu* and *Pachan* of *Vikruta kapha*.

Being *Kashaya* and *Grahi* it might be reducing the vaginal discharge.

It might be altering the vaginal mucosal pH by alteration of gut flora in vaginitis.

Modern view:

The immunostimulatory activity of buttermilk is probably due to presence of lactic acid bacteria as well as non bacterial components of buttermilk.

Buttermilk consumption increases antibody production, cytokines production, phagocyte activity, natural killer cell activity and T cell function.

Odan

Odan is *Deepan* & *Paachan* in properties which help to pacify excessive *Vatakapha dosha* in Leucorrhea⁸.

***Nagkesara*:** It has following properties⁹:

Rasa: Kashaya (astringent), *Tikta* (bitter)

Guna: Laghu (light), *Ruksha* (dry)

Virya: Ushna (hot)

Vipaka: Katu (pungent)

Doshakarma: Kapha-pittashamak

CONCLUSION

Following conclusions can be made from the study:

- Significant results are obtained in case of all the parameters in both Groups concluding that *Nagkesar* is a drug of choice in Leucorrhoea.

- As compared to group B, results of group A, in which *Nagkeshar* was given along with *Takra* and odan, are significant.
- Thus *Takra* and *Odan* enhances the effect of *Nagkeshar churna* in leucorrhoea and hence this can be concluded that dietary modifications play a significant role in the treatment of leucorrhoea.
- The formulation stimulates astringent action in vaginal mucosa and reduces excessive vaginal discharge in the vagina tract.
- *Takra* probably restores vaginal pH thereby enhancing the effect of *Nagkeshar churna* in *Shweta pradar*.
- *Takra*, hence acts as a probiotic in the treatment of leucorrhoea.

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